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## United States Patent [19]

### **Shonting**

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[54] ACOUSTIC AND ENVIRONMENTAL MONITORING SYSTEM

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[73] Assignee: The United States of America as

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[51] Int. Cl.<sup>6</sup> ...... H04B 17/00

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[56]

#### References Cited

#### U.S. PATENT DOCUMENTS

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#### [57] ABSTRACT

The present invention relates to an acoustic and environmental monitoring system which correlates natural phenomena and the sound produced by that phenomena. The system includes a bottom mounted hydrophone for measuring/monitoring ambient sound produced by rainfall, waves and wind with the sensors for measuring/monitoring wave height and direction, wind speed and direction and rainfall rate being located within 100 meters of the sound monitoring hydrophone. The system further includes electrical circuitry for correlating the measured natural phenomena with the measured/monitored sea sound surface.

#### 16 Claims, 7 Drawing Sheets

